AR4 - 8 Steam Boiler Series

Features
- Miniature boiler max. vessel volume 0.29ft³
- Maximum safety valve setting 100psi
- All boilers are manufactured in accordance with the requirements of the A.S.M.E. Boiler and Pressure Vessel Code and A.S.M.E. CSD-1. Each boiler bears the National Board Stamp “M”.
- High quality saturated steam, operating pressure range 0 – 85psig
- Heavy duty carbon steel pressure vessel. Vessel jacket and electrical enclosure 304 stainless steel
- Large selection of optional equipment

Standard Equipment of Each Boiler Includes:
- A.S.M.E. pressure relief valve
- One (1) quick opening bottom blowoff valve as per A.S.M.E. Code B31.1
- Bronze steam outlet ball valve
- High pressure feed pump on ARH-models
- Low water cutoff control with manual reset
- One (1) high pressure cutoff control with manual reset
- One (1) operating pressure control
- Magnetic contactor
- Indicator lights for POWER, REFILLING, HEATING and ALARMS

Applications
- Process Steam
- Dry Cleaning
- Food Service (*)
- Laboratories
- Air Humidification

<table>
<thead>
<tr>
<th>HEATING POWER kW</th>
<th>STEAM CAPACITY lbs/hr (kg/hr)</th>
<th>BHP</th>
<th>VOLTAGE(1)</th>
<th>PHASE</th>
<th>SHIP WT. Lbs (kg)</th>
<th>OP. PRESS. RANGE psig (bar)</th>
<th>Steam Outlet (NPT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 KW</td>
<td>13.6</td>
<td>0.4</td>
<td>240</td>
<td>1</td>
<td>90 (41)</td>
<td>0-85 (0 – 5.86)</td>
<td>1/2 1/4</td>
</tr>
<tr>
<td>8 KW</td>
<td>27.2</td>
<td>0.8</td>
<td>240</td>
<td>1</td>
<td>90 (41)</td>
<td>0-85 (0 – 5.86)</td>
<td>1/2 1/4</td>
</tr>
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Model Number Key

Feed Water Options:
A = Solenoid Valve
H = Solenoid Valve + Pump

Boiler Heating Power:
4 = 4kW
8 = 8kW

Blank = 120VAC power supply required at boiler installation site for hookup as boiler control voltage to provide 120VAC as boiler control voltage. (Applies to 380 & 415V voltages only)

Safety Relief Valve Setting:
A = 15psi
F = 100psi

Example: ARH8E1F = AR-Series boiler with feed water solenoid and pump, 8kW heating power, heating power supply 240V, 1ph, control voltage power supply 120V 1ph, safety valve set to 100psi.

Please note that all information provided within this brochure is approximate and subject to change without notice. Please contact Reimers Electra Steam, Inc. with any questions regarding the specifications or dimensions detailed within.
### Electrical Specifications

<table>
<thead>
<tr>
<th>HEATING POWER</th>
<th>VOLTAGE</th>
<th>PHASE</th>
<th>AMP DRAW</th>
<th>MIN REQUIRED N.E.C. SERVICE</th>
<th>NUMBER &amp; SIZES OF CONTACTORS</th>
<th>NUMBER &amp; SIZE OF ELEMENTS</th>
<th>GAGE OF POWER ENTRY WIRE</th>
<th>POWER ENTRY CONDUIT SIZE</th>
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</thead>
<tbody>
<tr>
<td>kW</td>
<td>V</td>
<td></td>
<td>A</td>
<td>A</td>
<td>1 x 35A res.</td>
<td>1 x 4kW, 240V</td>
<td>10 (5.27)</td>
<td>3/4</td>
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<tr>
<td>4</td>
<td>240</td>
<td>1</td>
<td>16.67</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>240</td>
<td>1</td>
<td>33.33</td>
<td>40</td>
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</tbody>
</table>

### Construction

- **Electronic Boiler Controller**
- **Steam Outlet Ball Valve**
- **High Density Mineral Wool Thermal Insulation**
- **Pressure Controls**
- **Incoloy Sheath Heating Elements with 2.5 x 2.5” Square Flange**
- **Safety Relief Valve**
- **Water Level Probes:**
  - High Water Level
  - Automatic Refill
  - Low Water Cut-Off
- **All 304 Stainless Steel Cabinet with Wire Brush Finish**
- **Gauge Glass Fixture**
- **Boiler Blowoff Ball Valve**

### Dimensional Drawings

**AR4 – AR8**

- SAFETY RELIEF VALVE
- WATER FEED ¾” NPT
- STEAM OUTLET BALL VALVE
- 16.62” (422.5mm)
- 16.30” (414.3mm)
- 15.28” (400.1mm)
- 18.30” (464.8mm)

**ARH4 – ARH8**

- SAFETY RELIEF VALVE
- WATER FEED ¾” NPT
- STEAM OUTLET BALL VALVE
- 14.62” (371.5mm)
- 15.28” (400.1mm)
- 16.30” (414.3mm)
- 18.30” (464.8mm)
1. Pressure Controlled Boiler Blowoff System Automatic Flush & Drain (not suitable for 24/7 applications), #OPT1016

1. Boiler Power OFF
2. Blowoff Enable Switch ON
3. Steam pressure drops below the setting of the blowoff pressure control, set at 15psig or less
4. Motorized ball valve opens for a time preset in the boiler controller
5. At the end of boiler blowoff, motorized ball valve closes automatically

2. Timer Controlled Boiler Blowoff System (suitable for 24/7 applications), #OPT1001

1. When the digital timer reaches its preset blowoff begin time, the boiler controls de-energize and the motorized ball valve opens
2. At the end of the boiler blowoff time, the motorized ball valve closes, the boiler controls energize and restore the water level and resume boiler operation automatically

3. Timer Controlled Boiler ON/OFF, OPT1017

Programmable timer to turn boiler ON/OFF automatically

4. AR-Boiler Model ARD8E1F Equipped With Steam Wand and Steam/Water Mixing Module for Cleaning Applications

Steam Flow Adjustment Needle Valve
Cold Water Flow Adjustment Needle Valve for Controlling Steam Wetness
Steam Wand

5. AR-Boiler Model ARJ8E1F Equipped With Steam Nozzle and Foot Pedal for Steam Cleaning Applications

6. Control Voltage Transformer for All AR-Boiler Models for Boiler Operation with 240V 1PH Heating Power Supply Only

7. AR-Boiler Model with Brass and Bronze Free Boiler Trim # OPT1030-AR

RB-series boilers in which standard brass/bronze boiler trim is replaced with carbon steel and stainless steel trim. This option reduces the lead concentration in the boiler water and discharged steam to significantly lower levels. Use this option in applications in which steam comes in direct contact with food and all other applications where lead concentrations are a concern.

8. Steam Filter for Culinary Steam Applications, #OPT1032:

Use this filter with FDA listed materials in food processing applications where the steam comes in direct contact with food. The 3 or 5 micron cartridges employed in this steam filter meet or exceed the 3-A guidelines for the production of Culinary Steam under Accepted Practice T609.

NOTE: The installation of this filter alone does not guarantee that the steam produced by your system meets all applicable culinary steam standards.